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REMARKS

The Examiner has objected to Claim 22 due to informalities. Applicant has clarified such claim to avoid such objection.

The Examiner has rejected Claims 1-30 under 35 U.S.C. 101 as being directed toward non-statutory subject matter. Such rejection is deemed moot by virtue of the claim clarifications made hereinabove.

The Examiner has rejected Claims 1, 3-11, 13-19 and 30 under 35 U.S.C. 102(e) as being anticipated by Vaidya (U.S. Patent No. 6,279,113). The Examiner has also rejected Claims 20-29 under 35 U.S.C. 102(e) as being anticipated by Copeland, III (U.S. Patent Application No. 2002/0144156). Applicant respectfully disagrees with such rejection, especially in view of the amendments made hereinabove to independent Claim 1 et al.

With respect to independent Claim 20, the Examiner has relied on paragraphs [0139-0140] and [0165] in Copeland to make a prior art showing of applicant's claimed "a signature classifier comprising a first stage classifier operable to classify packets according to at least one packet field into groups and a second stage classifier operable to classify said packets within each of the groups according to packet type or size."

Applicant respectfully asserts that such excerpts simply teach that "header data is read...[and] based on the source and destination IP addresses, the thread 610 searches for an existing flow in the flow data structure 162" (paragraph [0139]). Furthermore, Copeland discloses that "information is collected on all packets and on certain categories of packets such as TCP and UDP" (paragraph [0165]). Applicant notes, however, that the header data and categories of packets are not utilized to classify packets in two stages, in the manner claimed by applicant, but instead are two separate functions that are not in any way associated with each other. Furthermore, Copeland does not teach that the packets are classified "according to at least one packet field into groups," as claimed by

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applicant, let alone that the "packets within each of the groups [are further classified] according to packet type or size" (emphasis added), as claimed.

With respect to independent Claim 1 et al., applicant has amended such claims to incorporate the following claim language:

> "wherein the classification is carried out by a first classification stage capable of classifying the data packets based on a first set of packet characteristics, and a second classification stage capable of classifying the data packets received from the first classification stage based on a second set of characteristics."

For substantially the same (but not identical) reasons as argued above, applicant respectfully asserts that the references relied on by the Examiner do not teach the two step classification process as presently claimed by applicant.

The Examiner is reminded that a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. Of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Moreover, the identical invention must be shown in as complete detail as contained in the claim. *Richardson v. Suzuki Motor Co.* 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claim.

This criterion has simply not been met by the Vaidya and Copeland references, especially in view of the amendments made hereinabove. A notice of allowance or a specific prior art showing of each of the foregoing claimed features, in combination with the remaining claimed features, is respectfully requested.

Applicant further notes that the prior art is also deficient with respect to the dependent claims. Just by way of example, with respect to Claims 4 and 6, the Examiner

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has made a blanket statement that Vaidya teaches "classifying said packets according to at least one packet field into groups" to make a prior art showing of applicant's claimed "classifying said packets within each of the groups according to packet type or size" (see Claim 4) where "classifying said packets according to packet size or type comprises classifying said packets according to packet length" (see Claim 6). Specifically, the Examiner has relied on Col. 7, lines 2-21 and Col. 9, lines 46-61 in Vaidya to meet applicant's claim language.

Applicant respectfully asserts that such excerpts merely disclose attack signatures that specify a packet with specified attributes such that the attack signature is compared to packets with such specified attributes in order to detect network intrusions. Clearly, attack signatures that are only applied to packets with specific characteristics, as taught by Vaidya, do not meet applicant's claim language of "classifying said packets within each of the groups according to packet type or size" (emphasis added).

With respect to Claim 14, the Examiner has relied on Col. 7, lines 2-11 and Col. 9, lines 27-35 in Vaidya to make a prior art showing of applicant's claimed technique "wherein the lookup is performed in a flow table and further comprising updating a field of the flow table." Applicant respectfully asserts that Vaidya does not specifically disclose a flow table, as claimed by applicant, but instead only generally teaches a "reaction module 38 [that] takes steps to trace the application session associated with the data packet, to terminate the session, and/or to notify the network administrator" and a "hash index [that] is used to search...for a set of attack signature profiles...associated with the packet information." Furthermore, Vaidya also fails to even suggest "updating a field of the flow table," as specifically claimed by applicant (emphasis added).

Applicant again respectfully asserts that the Vaidya and Copeland references fail to teach all of applicant's specific claim limitations, as noted above. Thus, a notice of allowance or a proper prior art showing of all of the claim limitations, in the context of the remaining elements, is respectfully requested.

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Still yet, applicant brings to the Examiner's attention the subject matter of new Claims 31-35 below, which are added for full consideration:

"wherein the first set of packet characteristics includes at least one of a destination address, a protocol type, and a destination port number" (see Claim 31);

"wherein the second set of packet characteristics includes at least one of packet type and a size" (see Claim 32);

"wherein only the second classification stage remains in communication with a flow table for identifying an action to be taken with respect to the data packets" (see Claim 33);

"wherein the flow table is at least one hash table" (see Claim 34); and

"wherein the classification rules are generated after filtering the data packets" (see Claim 35).

Thus, all of the independent claims are deemed allowable. Moreover, the remaining dependent claims are further deemed allowable, in view of their dependence on such independent claims.

In the event a telephone conversation would expedite the prosecution of this application, the Examiner may reach the undersigned at (408) 505-5100. The Commissioner is authorized to charge any additional fees or credit any overpayment to Deposit Account No. 50-1351 (Order No. NALLP318/01.240.01).

Respectfully submitted,
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